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COMMENTS OF SATISH C. BHARDWAJ RELATED TO
THE INQUIRY, PURSUANT TO GN DOCKET #04-163,
OF FCC WIRELESS BROADBAND TASKFORCE ON FCC
WIRELESS BROADBAND POLICIES

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RECEIVED & INSPECTED

JUN 3 2004

FCC - MAILROOM

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SATISH C. BHARDWAJ has no connection with any telephone Company , including the Baby Bells, or with any of the Mobile Telephone Companies or any of the present or past owners of BROADBAND or Other AIRWAVES SPECTRUMS or SPECTRUMS related to VACANT TV CHANNELS and therefore may be deemed to be an educated and informed Observer Who has three college degrees who has closely followed the development of the world of INFORMATION TECHNOLOGY from the days of Preinternet era involving Main Frames beginning from 1963 when he entered the USA to the present day era involving the INTERNET, PERSONAL COMPUTER (DESK AND LAPTOPS), CELLULAR, MOBILE and WIRELESS HANDHELD DEVICES, including CAMERA ATTACHMENTS. He has no connection with any manufactures of COMPUTERS or WIRELESS DEVICES. Having had PHYSICS as the major for one of the degrees he is familiar with the INFORMATION TECHNOLOGY AND AIR-WAVES.

I. INADEQUACY OF THE INQUIRY OF THE FCC TASK FORCE

The TASK FORCE states its AIM in the 1st line of the second paragraph of PUBLIC NOTICE released May 5, 2004 having GN Docket No. 04-163, Namely "whether any changes can further facilitate WISP growth". But none of the questions in the Inquiry concern themselves to the extent of the use of the already issued BROADB-

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AND SPECTRUMS to provide internet service and other services.

(a) Questions 1-5 have nothing to do with WISP. They worry about access to other services and they want a Comparison of services between licensed services and unlicensed devices.

(b). Similarly question 7 spells out the concern of the TASK FORCE for the "extent and nature of deployment of WIRELESS BROADBAND SERVICES" to mean an interest in "data regarding market penetration rates; the geographic distribution of wireless Broadband services, the extent of competition in areas in which wireless is deployed and whether licensed services or unlicensed devices etc and the types of technologies employed.

(c). Question 8 concerns itself with the limiting effect of RULES ON TECHNOLOGIES and NETWORK configurations. and the question 9 concerns itself with the associated with the deployment of the Broadband spectrums. And so on with the remaining questions.

II. THE PREDOMINANT USE OF BROADBAND SPECTRUMS

(a) The spectrum owners will not voluntarily disclose that they are heavily into the BUSINESS OF ACQUISITION OF BROADBAND SPECTRUMS from the parties that originally acquired their spectrums from FCC. For Example Cingular acquired Broadband Spectrums from NEXTWAVE COMMUNICATIONS for \$1,500,000,000 (\$1.5 Bil). Alternatively they are in the business of acquiring Subscribers to the Mobile Phone Business. e.g. Cingular paid \$1900 for each of the 23,000,000 (23 Mil) subscribers to Mobile Phone service from AT&T Wireless.

() The SPECTRUM owners will not voluntarily disclose that they are primarily into the very profitable business of selling or reselling local telephone business the rates for which are protected by the Public Service Comm-

issions of the States in which they operate.

(c) The SPECTRUM owners will not voluntarily disclose that the substantially primary use of the Broadband Spectrums is to provide mobile telephone business because it has a high exit value. For Example, as stated in the preceding sub-paragraph AT&T wireless was able to unload its 23,000,000 (23 mil) mobile telephone service subscribers on CINGULAR although these Mobile phone service subscribers were producing heavy losses for AT&T Wireless.

(d). The Spectrum owners will not disclose voluntarily that the only INTERNET SERVICE they sell is the conventional internet service (MSN 8) in combination with FIBER OPTICS based Broadband Internet Service which has nothing to do with the BROADBAND AIRWAVES based internet service.

(e) The reason for the sale of the Fiber Optic wire broadband based Internet service is that the owners of Broadband Airwaves spectrums have invested heavily into those types of internet services. These services have to pay very heavy Access Fees to Local Phone Companies which Access fees are producing losses for the WIRED BROADBAND INTERNET SERVICES that are driving them to bankruptcies.

(f) While the shares of Common Stocks of all shareholders wiped out in these bankruptcies the bankruptcy judges allow major shareholders like Microsoft, Softbank, Baby Bells to buy capacity in the fiber optic networks at firesale rates The owners of Wireless Broadband Spectrums would rather sell the fiber optics wire broadband based internet service pooled with Mobil, local and Long distance service rather than develop technology to make it possible to deliver WIRELESS INTERNET SERVICE.

III. NO JUSTIFICATION FOR ACCESS FEES TO LOCAL TELEPHONE

(a) The local telephone Companies, owning and maintaining networks of telephone lines, connecting peoples homes, should be allowed to charge for local telephone service provided by them.

(b) Any access fees should be limited to the need of the customers to make long distance call. There is no justification for the access fees to be charged to the Networks when the local ^{le}te_kphone customers are charged for local phone calls to access other Networks.

(c) As long as the Baby Bells are allowed access Fees they will not invest in any technology need to provide WIRELESS INTERNET SERVICE because they will continue to promote the use of Fiber Optic Broadband Internet SERVICE.

IV. PRESENT STAGE OF THE TECHNOLOGY DOES NOT ALLOW THE DELIVERY OF WIRELESS INTERNET SERVICE.

(a) The owners of the BROADBAND SPECTRUMS have developed the technology needed to provide CELLULAR PHONE SERVICE.

(b) But there ^{are}no personal Computers (Desktops or Laptops) that work like cellular or mobile phones. These personal computers must be equipped with WIRELESS CARDS to communicate with the Remote Servers not connected to these personal by means of telephone lines or fiber optic broadband networks.

(c) But these personal computers need to be physically ^{present} in hot zones unlike cellular phones. These hot zones are an extremely rare phenomenon.

V. THERE ARE HANDHELD DEVICES THAT ALLOW THE WIRELESS TRANSMISSION OF DATA

(a) Nokia, Erickson, Motorola and other cellular equipment manufactured wireless devices that can carry out wireless communications.

(b) These devices can be attached with cameras to take pictures that can be wirelessly transmitted.

(c) These devices are being limited to the use of sending and receiving short written messages and pictures and oral Communications. Absence of Technology prevents their use to Browse the internet although such a technology existed and

was in use at the time IBM was being sued by the Government of monopoly. It was used for remote multitasking main frames. It was abandoned when Steve Job introduced his Apple Computers although Bill Gates is being credited as richest man in the world by completely wiping out even the memory of that technology.

(d) the handheld devices, mentioned in sub-paragraph v(a) hereof can't browse the internet because they lack *ability* to process the data. For that reason, the infrastructure would have to be changed so that the servers would process the data instead of merely sending files to the Clients (the personal computers of Internet surfers)

(e) This would allow multitasking and nano-technology that have been perfected through the use of Federal Government Grants.

(f) the development of this technology would also accomplish what the firewalls have failed to accomplish, namely, wipe out viruses since the processing would be done by servers owned by others.

(g) The development of this Technology would also wipe out the theft of intellectual property of the music industry in the form of downloading of CDs. For CD downloading the recording industry is getting the courts to fine the parents of minor downloaders.

VI. ANSWERS TO THE QUESTIONS IN THE INQUIRY BY TASKFORCE PURSUANT TO GN DOCKET # 04-163

QUESTION 1. TO WHAT EXTENT ARE BOTH LICENSED AND LICENSED WIRELESS BROADBAND.....TO OTHER BROADBAND SERVICES.

(a) (1) PRIMARY USE OF BROADBAND SPECTRUMS
In as much as the the spectrums issued by the FCC are being used primarily to provide cellular and or Mobile phone service and as much as the owners of the Broadband Spectrums are only reselling conventional and or Fiber Optic Broadband or DSL based internet service these owners have no plarforms to offer to any services nor or any platforms needed unless the purchase of

wholesale cellular phone service for resale, ^{is} deemed to be a platform, in which case, the Spectrum owners are doing good job indeed since there is no dearth of resellers of all types of phone services and of internet services except wireless internet service. Wireless Internet service is a new and rare phenomenon.

(b). This is not to say that the wireless cards are not available to browse the internet without connecting the Laptop to a wired network. But you'd have to move out of your house to find a hot spot unless your house has a hot spot. Most people would not have a hot spot in their houses. My house does not have hot spot. You don't need a hot spot to work your mobile phone in.

(ii) THE STAGE OF DEVELOPMENT OF TECHNOLOGY FOR THE DELIVERY OF WIRELESS INTERNET SERVICE IS VERY PRIMITIVE INSPITE OF THE AVAILABILITY OF DEVICES NECESSARY FOR THE DELIVERY

- (a) While the delivery of the mobile telephone service is hardly trouble free, the mobile telephone service is inferior only relative to the telephone service delivered over the telephone lines.
- (b) But the delivery of WIRELESS internet service is primitive indeed inspite of the investment of 100's of Billions of Dollars, if not trillions of Dollars, in the development and manufacture of very advanced devices having the capability of delivering WIRELESS INTERNET SERVICE in the manner MOBILE PHONE SERVICE is delivered.
- (c) The reason has to do with the technology used to deliver INTERNET SERVICE. The technology has created a manner of of INTERNET SERVICE that provides a haven for the hackers. IT allows them to access the personal Computers of others at will.
- (f), The present technology for the delivery of the Internet service requires all PERSONAL COMPUTERS to have a PROCESSING ABILITY except those used as SERVERS. This is not to say that the **S**ERVERS don't have PROCESSING CAPABILITY. Only the PROCESSING

CAPABILITY of the SERVERS is used to direct the transmission of files rather than to process them.

- (g). The necessity of a PROCESSOR, for all INTERNET BROWSING DEVICES, is hampering the development of truly UNIVERSAL INTERNET SERVICE akin to the mobile telephone service and certainly better and faster than all cement and mortar internet services including T1 lines.

- (iii) IN AS MUCH AS THERE IS ABSENCE OF ANY VIABLE WIRELESS INTERNET SERVICE
THERE IS NO FACILITIES BASED PLATFORM NEEDED BY ANY OTHER
SERVICES INCLUDING FIBER OPTIC BROADBAND, CABLE OR DSL

(a) All the vendors, in the Communications business, are entities that are the resellers of any and every communication product and service available in the worldwide market. As a matter of fact, for example, baby Bell Verizon is actively seeking customers for a combination of services such as local, long distance, mobile phone services and internet services such as Fiber Optic based broadband Internet service plus wired Internet Service the form of a conventional internet service MSN 8 as if Fiber Optic broadband Internet Service are deficit in some respect.

(b) in the situation, AOL would not be left behind. Not only it has a conventional internet service AOL 9.0 it has a cable based Time Warner developed internet service called Road Runner and it has purchased on wholesale fiber optic Broadband based internet service. AOL is actively pushing the pooled services.

(c) Under the circumstances FCC has been wrongly led to believe that its Airwaves Spectrums are revolutionarizing Wireless Internet service. Nothing is farther than truth. Many times the WIRELESS BROADBAND SPECTRUMS are being purchased at premium prices just to keep rivals out of business as exemplified by the purchase of raw or mostly raw spectrums owned by Nextwave communications for \$1.5 Bil and the purchase of loss Producing spectrums from AT&T Wireless at a cost of \$1900 per subscriber for a total of

21 mil subscribers. The buyer in both cases is CINGULAR.

B. 2nd PART OF QUESTION 1: TO WHAT EXTENT HAVE WIRELESS.....
IN RURAL AND UNDERSERVED AREAS? IF
SO ARE REGULATORY CHANGES NEEDED etc.

(i) WIRELESS BROADBAND OWNERS SHUN THE DEVELOPMENT OF WIRELESS
SERVICE IN FAVOR OF CELLULAR PHONE SERVICE EVEN IN HEAVILY
POPULATED URBAN AREAS.

(a) This point has been established thoroughly in the preceding sections.

(b) These owners are heavily committed to the resale of each and every Communication service that has been developed and been sold.

(c) This commitment is hurting the development of the Technology needed to make Universal Wireless service possible even in the urban areas having high population densities.

(ii) IT IS TOO PREMATURE TO TALK OF WIRELESS INTERNET SERVICE IN
RURAL AND UNDERSERVED AREAS

(a) it has been explained how prohibitively expensive are the AIRWAVES SPECTRUMS.

(b) even the CELLULAR PHONE SERVICE requires the erection of transmission Towers.

(c) In addition to the cost there is question of opposition from rural people including Dairy farmers to the erection of these Towers amidst their Dairy herds for fear that the milk production will drop.

(d) Further even the Cellular Phone Service has to have a reasonably high EXIT value to justify the enormous INVESTMENT needed to introduce it in any area. It's doubtful if the cellular phone service would have a high enough EXIT value in rural Area to encourage its INTRODUCTION.

(e) The people at cellular equipment manufacturers will have to get educated about the potential of their handheld devices to encourage their INVESTMENT in the development

of the abandoned off-the-shelf technology to induce them to invest in its development.

(iii) REGULATORY CHANGES NEEDED TO ADVANCE THESE TRENDS

(a) This INQUIRY concerns itself about advancing the CAUSE of WISPS in rural and underserved areas.

(b) It's hoped that this presentation has convinced all, including those in Power, including the FCC, to concern themselves about WISPS even in urban areas having highest densities to make WIRELESS INTERNET SERVICE a reality.

(c) The obvious regulatory change needed is change the way the BROADBAND SPECTRUMS are issued and Traded.

(d) FCC has converted AIRWAVES into a commodity. It holds and sells them to highest bidder. There is no justification for that.

(e) There is no justification for FCC to allow the trading of the Airwaves spectrum issued by it no matter what the manner of Issuance of the Spectrums.

(f) The FCC should require the parties desiring the spectrums to detail the purpose for which they will use it.

(g) The purpose and manner of use should be new and Unique.

(e) if the person or the entity, that acquired the Spectrum fails to use it or fails to develop a way to use it the spectrum or spectrums should be confiscated by FCC and not be allowed to be traded to profit from them.

C. QUESTION 2: DOES THE FCC PROVIDE ENOUGH SPECTRUMS.....

(i) IN AS MUCH AS THE SPECTRUMS ARE GOING TO BE USED TO OFFER MOBILE PHONE SERVICE FCC HAS ALREADY PROVIDED ENOUGH BANDS

(a) People seek the FCC spectrums to enrich themselves like the people at NEXTWAVE COMMUNICATIONS and PEOPLE at CINGULAR.

(b) People at Nextwave were opportunists who used the FCC SPECTRUMS to establish themselves to get start up

seed capital without having a new and unique use for the SPECTRUMS.

(c) People at the powerful CINGULAR (subsidiary of two Babybells) paid a huge sum of money at the rate of \$1900 per subscriber to the cellular phone service (total of \$41,000,000,000 (\$41 Bil) to AT&T to purchase loss producing subscribers . . . It's not known if AT&T wireless was a mere reseller of cellular phone service or had its own Broadband Spectrums.

(d) So anxious was Cingular to acquire the Spectrums that CINGULAR rigged the bidding Process. It did not bid until the close of the bidding by AT&T. It then asked AT&T about the highest bid and then prevailed upon it to accept a bid higher than the highest bid after the close of bidding.

(e) FCC should bar both AT&T wireless and Cingular from the USE of any BROADBAND AIRWAVES to encourage honesty among the spectrum owners.

(e) There is no reason for FCC to issue more Broadband for such irresponsible corrupt and illegal trading.

(ii) IN AS MUCH AS THE PURPOSE OF FCC IS TO ENCOURAGE THE THE DEVELOPMENT OF WIRELESS INTERNET SERVICE FCC HAS NOT COME CLOSE TO ISSUING ENOUGH BROADBAND SPECTRUM.

(a) FCC should cease to issue spectrums to highest bidders or on first come first come basis. Both of these processes encourage abuse.

(b) FCC has the current policy of encouraging the growth of WIRELESS INTERNET SERVICE. FCC should be commended for its interest in the WIRELESS INTERNET SERVICE. Hence FCC should encourage the development of WIRELESS INTERNET SERVICE by awarding sufficient Broadband Spectrums for the development of a CENTRALIZED PROCESSING System of delivering internet service by WIRELESS means by the use of handheld devices developed by Nokia and others.

(iii). PART 2 of QUESTION 2 Asks if relative availability of spectrum suitable for licensed services or unlicensed devices appropriate? if not, how so?

(a) FCC has been misled as to whether people are looking forward to developing new and unique licensed services unless the licensed service concerns a new style of mobile telephone. No one is even remotely thinking of putting the hand held device to use for navigating the internet.

(b) There is only one way a spectrum would be available from an owner of Broadband Spectrum. That would be to pay a heavy price. Only deterrent would be FCC opposition if any. It seems FCC cleared the sale at exorbitant price, the spectrums by Nextwave.

(c) as far as unlicensed devices are concerned. It is new phenomenon. Only a few devices are using the unlicensed devices.

(d). inspite of the denials by those who are propagating the use of spectrums in connection with unlicensed devices, the lack of a centralized processing would always be a problem for them because hackers would cause them to breakdown.

(e) Cellular phone business is not so profitable and unlicensed devices would always be a lure for the owners of spectrums who are able to sell them at highest prices.

(f). the release of vacant TV channels has come very timely in that the use of very expensive Broadband spectrums would now vanish. Unless ofcourse ^{FCC} starts selling them to highest bidders or starts offering them on first come first served basis.

(g) if the fcc allows their free and open use subject to the restriction that their use should cause no interference the Broadband Spectrums would cease to be used for unlicensed devices.

QUESTION 3:

- a. There has never been free spectrum available.
- b. Free spectrum has only now been available for unlicensed devices.
- c. There is no way any entities will use the exorbitantly expensive Broadband spectrum for applications for which free spectrum is available no matter what the restriction.
- d. There is a problem for the design of applications for unlicensed devices. Hackers will cause the devices to break down or give wrong readings unless a centralized processing system is developed
- e. Another problem. People will disguise their applications for licensed applications as unlicensed devices to steal free spectrum.

Question 4.

- a. as has been mentioned before, the use of Broadband Spectrum for Wireless Internet Service is not nearly as widespread as for Mobile Telephone service due to the necessity of Hot zones. The use for unlicensed DEvices is even rarer phenomenon and use for unlicensed devices was only recently being contemplated for those devices that would provide a relatively high return as for example for very expensive appliances or automobiles that would bear the cost of exorbitantly costly broadband spectrum.
- b. With the release of free spectrum the situation has changed drastically in as much as the public will disguise their applications as belonging to unlicensed devices to avail^{of} the use of free spectrum.
- c. The situation drastically calls for centralized processing so that people, using the free spectrum for applications that do not belong to unlicensed devices, are caught.
- d. The threat of Terrorism also mandates the introduction of CENTRALIZED PROCESSING since the servers, doing all the processing^{would} belong to third parties.
- e. The Fcc Task force is wrongly concerned that people will shun

free spectrum because of the restrictions for its use.
it's the exorbitantly expensive Wireless Broadband Spectrum that will be shunned, if at all.

Question 5

- a. I respectfully submit that FCC TASK FORCE has wrongly assumed that the Broadband Spectrums are being as widely used to offer Wireless Internet Service as they are being used to offer mobile telephone service.
- b. I also respectfully submit that the FCC Task Force is totally wrong about the portability advantages as far Wireless Internet service is concerned in as much as the wireless Laptops can't be used in as many places as Task Force thinks they can be used in or as many places as the Mobile Telephones can be used in.
- c. Even Mobile Telephones are not trouble free in as much the messages can't be clearly heard.
- d. The biggest problem with Wireless Telephone service is that the owners of Broadband Spectrum are not as anxious to sell wireless cards as they are to sell cellular phone service pooled with local, long distance telephone service and conventional Internet, DSL and or fiber optic based broadband Internet service.
- e. The pooled services, mentioned previously, provide higher revenue than the sale of wireless cards and subscriptions to hot zones.
- f. People will not pay per minute charges just to sit in hot zones and operate their lap top. They would rather use the computers of others that are connected to networks.
- f. If the Task Force is serious about promoting high speed WIRELESS INTERNET SERVICE it had ^{better} take note of the suggestion made herein as to the development of centr-

alized processing that will make it possible to browse the internet without the laptops through the use of handheld devices made by WIRELESS Equipment manufacturers that are being used only as MOBILE PHONES.

QUESTION 6.

- a. FCC Task Force has wrongly assumed that it is the severity of regulation that is responsible for any tardiness in the development of WIRELESS INTERNET SERVICE.
- b. Actually the tardiness in the development of WIRELESS INTERNET SERVICE is due to the UNKOSHER RELATIONSHIPS that exist between the various entities in the telecom industry as for example between Verizon and Microsoft.
- c. As an example of unkosher relationships, mention must be made of the investment by Microsoft in the GLOBAL Crossing that recently emerged from Ch. 11 bankruptcy although it was a classic candidate for Ch. 7 Liquidation. The Common Stock Holdings of all the shareholders was wiped out. But Global Crossing rewarded Microsoft for its loss due to the loss of its Common Stock by the award of the fiber Optic Capacity at a steep discount which is being paddled by Verizon. Verizon is a major vendor of mobile telephone service. But will have no part in developing Wireless Internet service.

Question 7

- a. FCC Task Force is continuously talking about deployment of WIRELESS BROADBAND. Wireless Broadband is deployed only for the offer of Mobile Telephone for the offer of Mobile Telephone Service for which there are only two major vendors. Verizon and Cingular at least in the USA. This figure is down from three. Cingular brought out the third fraudulently by fraudulently shutting out an english Company having no business in USA. The FRAud consisted of a bid from Cingular after the close of public bidding.

Question 7 Continued

- b. These two vendors control 80 or 90% of the Cellular or mobile phone service. The rest of the vendors are definitely resellers who buy their phone Service from one of these two vendors and have ten to 20% of the market cellular phone.
- c. Competition may be deemed to be absent in as much as originating the Mobile Phone Service is concerned.
- d. In as much as the technologies are concerned unkosher relationships between Microsoft and Babybells will prevent the development of New Technologies.
- e. I'm trying to promote the development of a technology that was abandoned four decades ago. I call this technology centralized processing that will allow the use of a hand held device, developed by Cellular equipped makers to Browse the Internet.
- f. I doubt baby bells will talk about this technology.
- g. I doubt Microsoft or AOL will talk about this technology. They would rather have the people buy their conventional Internet service.
- h. I hope the FCC Task Force will take note that unkosher relationships are preventing the development of new technologies needed to produce WIRELESS INTERNET SERVICE.
- i. There is no way the high cost of broadband spectrum will allow their use in unlicensed devices. At least not to any statistically significant degree,
- j. Now there is hope for unlicensed devices because of availability of free spectrum.

QUESTION 8

- a. what needs review is the FCC policy of issuing spectrum to parties like Nextwave Communication who are successful in securing Broadband Spectrums without having

Question 8 (contd.)

- any intention of using them to offer any wireless service.
- b. what needs review is the policy of allowing the parties to whom it has issued any spectrum to trade the spectrum.
- c. What needs review is the FCC policy to sell the spectrums to highest bidders or on first come first served basis.
- d. FCC should reserve its spectrums for issuance to people who have worthwhile technologies like my vision of a centralized processing which will make it possible for people to use the handheld wireless devices to surf the Internet.

Question 9

- a. FCC should encourage the development of new and enterprising technologies that I'm advocating and discourage the development of applications that lead to exploitations.
- b. People have become lazy and don't program their Computers at all.
- c. Entities like Oracle have developed applications for leasing. Businesses lease the Oracle applications at a heavy recurring cost when they could have their programmer get the work done for a one time cost.
- d. This policy will create jobs and save money to businesses
- e. Dr. Kheradpir of Verizon once gave an Interview to a WSJ Reporter. Dr. Kheradpir said that the Verizon has to incur ever increasing cost of buying servers. The reason is that the applications based on some protocol result in partially used servers.
- f. To answer question 9a the vendors are pushing the use of wired Internet by giving incentives. As long as this

is the case no applications will be developed for the direct use of WIRELESS INTERNET although if the application is properly developed there is no reason why it *should not* work on WIRELESS INTERNET. AS for as difference between applications for licensed and unlicensed networks is it is seriously hoped they are different otherwise people will start using unlicensed spectrums instead of Broadband Spectrums because they are very exorbitantly expensive.

g. At this point nobody has to worry about data rates because the use of Wireless Laptops is sparse. But it is *hoped* that people pay for the use of Hot zones at monthly *rates* rather than for the transfer of amount of data. That would kill any chance of development of WIRELESS INTERNET.

h. Right now all or nearly all the traffic is on wired (or cement and Mortar, as they are known as) networks. This is because of inconvenience of the way Wireless Cards work.

i. Why would the WIRELESS Broadband be needed for wired Networks? Obviously FCC Task Force is unduly concerned.

QUESTION 10

a. FCC TASK FORCE is talking about two different things in the first line of this Question.

b. If FCC WIRELESS TASK FORCE is interested in "information broadband deployment" it should ask questions about ~~age~~ of the broadband spectrums used for WIRELESS INTERNET SERVICE generally and for the use ^{of} Mobile telephone service

c. The line of Questioning generally and that used partially in questions 5 through 11 gives the OPPORTUNITY SEEKERS a golden opportunity to paint a rosier picture of the spectrum deployment than it is even for deployment for mobile telephone service deployment while WIRELESS INTERNET SERVICE remains totally ignored by spectrum owners.

QUESTIONS 11.

- (i) ARE THERE WAYS IN WHICH FEDERAL WIRELESS BROADBAND POLICIES COULD BETTER AVAILABLE OPTIONS FOR STATES AND MUNICIPALITIES? IF SO, HOW?
- (a) Federal Broadband Policies have never been SPECIFIC USE Oriented. FCC TASK FORCE has recognised this fact as shown by QUESTION 4 (See end of second line and third line).
 - (b) The federal policy of letting the SPECTRUM OWNERS trade the SPECTRUMS has let the WIRELESS INTERNET SERVICE remain undeveloped.
 - (c) The piecemeal development of infrastructure to accommodate the hardware, as developed prior to the days of the internet and interests of those, already entrenched in personal Computer business, has discouraged the development of Wireless Internet service.
 - (d) FCC has to drastically change the ways it allots the available spectrum before it attempts to change available options for States and Municipalities.
 - (e) FCC should get out of the business of profiting from the sale of the Broadband Spectrums.
 - (f) FCC should allot its Spectrums for Specific Use and bar the resale of the option so allotted.
 - (g) FCC should not allot new Spectrum to those who already own BROADBAND SPECTRUM, no matter how compelling reason or use they present to FC.

QUESTION 12

WHAT BARRIERS (INFORMATION, INFRASTRUCTURE) TO ENTRY REMAIN FOR WISP ENTREPRENEURS PARTICULARLY FOR UNLICENSED SERVICES? TO THE EXTENT IDENTIFIED, HOW CAN GOVERNMENT ADDRESS THESE ISSUES?

- (a) This is the first time TASK FORCE has mentioned UNLICENSED SERVICES. Previously Task Force has been referring to unli-

censed devices.

(b) Previously I had assumed that FCC Task Force was referring to recently released "Vacant TV" Channel" when it referred to "Unlicensed services? Now I'm not so sure.

(c) Wireless Internet Service is a major undertaking and for a successful deployment, the spectrums upon which WIRELESS INTERNET SERVICE is based, can't be shared with with other users. Otherwise WIRELESS INTERNET SERVICE will find few subscribers.

(d) In any case the development of successful WIRELESS INTERNET SERVICE requires that the use be made of the already developed hand held mobile devices that are being used for the cellular (Mobile) Communications which are based upon the Broadband Spectrums.

(e) Entrepreneurs also need to raise substantial seed capital to develop WIRELESS INTERNET SERVICE that is truly mobile in nature and works like cellular telephone for which no hot zones are needed as is presently the case.

(f) Instead of requiring entrepreneurs to make use of Vacant TV Channels FCC should make some Broadband Spectrum available with the condition that the spectrum can be used only WIRELESS INTERNET SERVICE.

SUMMARY

I've, through this presentation, tried to correct the notion, seemed to be possessed by FCC TASK FORCE that WISP is an established force just like Mobile Phone Service Providers or Like Wired Internet Service. FCC Policy of Issuing the Broadband Spectrums has led to the abuse of the Use of these Broadband Spectrums in that some of the original owners like Nextwave Communications and others have simply sold them ^{instead of even} providing a service with an established Market and High Exit value like Mobile Phone Service. At the present time there are only two vendors with upto 90% of the subscribers to the Mobile Phone Service.

Development of Wireless Internet Service would be completely against the interests of the Major entities that have led to piecemeal development of the infrastructure used in the Wired Internet Servicem including the personal Computers used by the consumers surfing the Wired Internet Service, servers and hardware and software used in the infrastructure. These Entities involved in the Wired Internet Service Providers and the Major telephone Companies have invested heavily in the acquisition of the Broadband Spectrum. But they find it very desirable to engage in selling a pooled local, Long Distance and Mobile Telephone Service because this business has a very high exit value.

Because of these reason the Wir^eless Internet Service has remained very primitive in that the development of the Wireless Internet Service has been limited to the development of Wireless Cards that will enable Lap Tops to access Wirless Internet Service if the Laptop is located physically in hot spots which are not easily available.

Although Cellular Equipment manufacturers have manufactured handheld devices that can be used to surf the net only if infrast-
ruture is changed so that the surfing devices are no longer required to process the data. Instead the infrastructure sould entrust that task to servers.

If FCC would provide a few Broadband Airwaves spectrums for the development of the abandoned technology mentioned herein, WIRELESS INTERNET SERVICE would become a reality. Otherwise AOL and Micr-
osoft will not let the era of wired Internet Service pass by.

Finally, it's requested that any person or entity, submitting Comments, in reply to this presentation, send a copy of such Comm-
ents to Satish C. Bhardwaj at 171 Lexington Ave #403, New York, NY 10016.

New York, NY
June 2, 2004


Satish C. Bhardwaj